UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,554	11/28/2003	Miki Sasaki	OKI 392	4972

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RABIN & Berdo, PC
1101 14TH STREET, NW
SUITE 500
WASHINGTON, DC 20005

EXAMINER
ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
2165	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/722,554	SASAKI ET AL.
	Examiner	Art Unit	
	Neveen Abel-Jalil	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 January 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-8 and 10-16</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3-8 and 10-16</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on January 4, 2008 has been entered.

2.   In response to Applicant's Amendment filed on January 4, 2008, claims are newly added.

Therefore, claims 1, and 3-9 are now pending for examination in the application.

3.   It is suggested that in claim 1, line 9, the term "can be" replaced with "are".

In claim 5, line 2, the term "if" to be replaced with more direct and definite term "when"

and to replace "for completing" with "to complete".

In claim 10, line 3, the term "for measuring" should be replaced with "to measure".

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

5.   Claims 10 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims recite the term "dimension" and related "dimension attributes" which have no support or description or even a mention in the specification. What is in fact shown in Applicant's Figure 3 is a table with different headings including an attribute column, and various other columns, "dimensions", as well known in the art, are not equivalent to tables/columns in this case, correction is required.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1, 3-8, and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zamora et al. (U.S. Patent No. 4,887,212) in view of Paik et al. (U.S. Patent No. 6,076,088).

As to claim 1, Zamora et al. discloses a numerical expression retrieving device for completing and retrieving a numerical expression comprising:

input means for inputting a record to be retrieved (See column 2 , lines 14-20), the record containing an incomplete numerical expression that includes a prefix without the basic unit of

measurement itself (See <u>Zamora et al.</u> column 13, lines 55-61, dictionary or table of prefixes alone);

syntactic parsing means for parsing a syntactic structure of the inputted record (See <u>Zamora et al.</u> abstract);

an attribute dictionary which stores attribute information and unit system information therein, the attribute information including attribute names indicative of attributes pertaining to features that *can be* numerically measured or quantified (See <u>Zamora et al.</u> column 7, lines 47-64, and see <u>Zamora et al</u>. column 8, lines 20-30, and see <u>Zamora et al</u>. column 8, lines 40-51, wherein attributes, property names, and descriptor pointers from a table for category classification are taught), attribute contents indicative of meanings of the attributes, to supplement omitted representations, the unit system information including prefixes to decide omissions, and multiples indicative of meanings of the prefixes (See <u>Zamora et al.</u> column 13, lines 55-67, and see <u>Zamora et al</u>. column 15, lines 19-26, wherein "numerical expressions" are prefixed and thus associated with words from the dictionary for completion);

a co-occurrence word dictionary which stores therein information including attribute names indicative of attributes, and co-occurrence words to decide the attribute names (See <u>Zamora et al.</u> column 15, lines 10-26, wherein "attribute adding" reads on "tagging", and wherein "parsing is being preformed following syntactic rules", and see <u>Zamora et al.</u> column 6, lines 5-19, and see <u>Zamora et al.</u> column 7, lines 20-26, wherein it is taught all dictionaries in <u>Zamora</u> are organized by frequency of occurrence of words);

omission completion means for completing the incomplete numerical expression by adding to the prefix of in the inputted record by referring to the parsed syntactic structure and

said attribute dictionary and by further referring to said co-occurrence word dictionary (See

Zamora et al. column 15, lines 10-26, wherein "attribute adding" reads on "tagging", and

wherein "parsing is being preformed following syntactic rules", and see Zamora et al. column 6,

lines 5-19, and see Zamora et al. column 7, lines 20-26, wherein it is taught all dictionaries in

Zamora et al. are organized by frequency of occurrence of words);

a database which stores data therein (See Zamora et al. abstract); and

storage and retrieval means for storing the record with the incomplete numerical

expression completed, the inputted record in the database (See Zamora column 13, lines 55-61,

and see Zamora et al. abstract);

wherein said omission completion means searches the inputted record for a numerical .

expression shortened to a prefix only, from within the inputted record by referring to the parsed

syntactic structure and said co-occurrence word dictionary (See Zamora et al. column 7, lines 50-

66, and see Zamora et al. column 13, lines 43-65),

determines a co-occurrence word of one of the prefixes included in the unit system

information on the basis of the parsed syntactic structure for the incomplete numerical

expression (See Zamora et al. column 2, lines 49-59, and see Zamora et al. column 7, lines 20-

24, wherein any one of the three disclosed dictionaries can be the co-occurrence dictionary since

they are organized by frequency of words), determines an attribute name of the prefix by

referring to said co-occurrence word dictionary on the basis of the determined co-occurrence

word, and adds words to the prefix in the inputted record by referring to said attribute dictionary

on the basis of the determined attribute name (See Zamora et al. column 5, lines 51-61, and see

Zamora et al. column 8, lines 20-27, and see Zamora et al. column 8, lines 44-51, wherein list of

attributes are in separate dictionary).

Zamora et al. teaches the claimed invention but does not explicitly teach prefix for a basic

unit of measurement without the basic unit of measurement itself and does not teach extraction

means for extracting a word with the basic unit of measurement added to the prefix in the

inputted record, as a retrieval keyword for the record after the completion of the incomplete

numerical expression by the omission completion means, and storing keywords in a database.

However, Zamora et al. teaches prefix for numerical characters in column 7, lines 50-63.

Paik et al. teaches prefix of basic unit of measurement (See Paik et al. column 11, lines

11-23, and Paik et al. column 11, lines 54-55); and

extraction means for extracting a word with the basic unit of measurement added to the

prefix in the inputted record, as a retrieval keyword for the record after the completion of the

incomplete numerical expression by the omission completion means and storing keywords in a

database (See Paik et al. column 11, lines 1-23, wherein "numerical concepts" are taught to be

matched against each other and tagged for retrieved (i.e. annotated with keywords), and see Paik

et al. column 12, lines 11-20, and see Paik et al. column 12, lines 3743, wherein parser extracts

information from input and once identified tagged with concept and stored in a category).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have modified Zamora et al. by the teaching of Paik et al. to include unit of measure

as prefixes to numerical expression and extraction means for extracting a word with the basic

unit of measurement added to the prefix in the inputted record, as a retrieval keyword for the

record after the completion of the incomplete numerical expression by the omission completion

means because it is well known in the speech recognition art that documents contain both words

and numerical expression and both would need to be disambiguated in a data retrieval system

(See Paik et al. column 4, lines 1-14).

As to claim 3, Zamora et al. as modified discloses comprising:

output means (See Zamora et al. Figure 1, last step after last block, Output word strings

with parsing markers);

wherein said omission completion means decides whether or not the incomplete

numerical expression in the inputted record is a numerical expression shortened to a prefix only,

by referring to the parsed syntactic structure and said co-occurrence word dictionary, and when

the incomplete numerical expression in the inputted record is indeed shortened to a prefix only,

said omission completion means notifies a user to that effect by said output means and prompts

the user to re-input a numerical expression (See Zamora et al. column 7, lines 50-63, and see

Zamora et al. column 22, lines 5-17, and see Paik et al. column 9, lines 44-51, and Paik et al.

column 22, lines 60-67 wherein a display inherently show if error occurs and allows user to

replace the input).

As to claim 4, Zamora et al. as modified discloses comprising:

output means (See Zamora et al. Figure 1, 47, Display);

wherein said omission completion means decides whether or not the incomplete numerical

expression in the inputted record is a numerical expression shortened to a prefix only, by

referring to the parsed syntactic structure and said co-occurrence word dictionary, and when the

incomplete numerical expression in the inputted record is indeed shortened to a prefix only, said

omission completion means presents basic units of measurement and attribute information by

said output means and prompts a user to select one of the basic units measurement, and

completes the incomplete numerical expression with the a basic unit of measurement selected by

the user (See Zamora et al. column 7, lines 50-63, and see Zamora et al. column 13, lines 60-65,

and see Paik et al. column 11, lines 11-23, wherein it is inherent that length and weight are

represented by basic unit of measurement).

As to claim 5, Zamora et al. as modified discloses wherein, if a basic unit of measurement for

completing the incomplete numerical expression has not been selected, said omission completion

means completes the shortened numerical expression with a plurality of basic units of

measurement (See Zamora et al. column 7, lines 50-63, and see Paik et al. column 11, lines 11-

23, wherein it is inherent that length and weight are represented by basic unit of measurement,

and wherein "if" is interpreted as conditional statement that does not have to take place).

As to claim 6, Zamora et al. as modified discloses wherein said document storage and

retrieval means retrieves a record whose retrieval keyword agrees with the incomplete numerical

expression in the inputted record, from said document database, and outputs the retrieved record

as a retrieved result by said output means (See Zamora et al. column 7, lines 47-67, and see

Zamora et al. column 13, lines 58-61, and see Paik et al. abstract, and see Paik et al. column 3,

lines 55-60, wherein "query text" reads on "keywords", and wherein "tagging" is in fact

assigning keywords for classification and retrieval).

As to claim 7, <u>Zamora et al.</u> as modified discloses wherein the record comprises a document (See <u>Zamora et al.</u> column 3, lines 55-65, and see <u>Zamora et al.</u> column 11, Table 1, and see <u>Paik et al.</u> abstract).

As to claim 8, <u>Zamora et al.</u> as modified discloses wherein the record comprises a numerical expression (See <u>Zamora et al.</u> column 7, lines 50-63, and see <u>Paik et al.</u> column 11, lines 11-23, wherein it is inherent that length and weight are represented by basic unit of measurement).

As to claim 10, <u>Zamora et al.</u> as modified discloses wherein the attributes include dimensions, the attribute names include names of the dimensions, the basic units of measurement are units for measuring the dimensions, and the co-occurrence words include expressions associated with the dimensions (See <u>Zamora et al.</u> column 7, lines 20-24, and see <u>Zamora et al.</u> column 8, lines 20-30, wherein "dimension" is read to be "table", wherein "tables" inherently have a column headings and property names).

As to claim 11, <u>Zamora et al.</u> as modified discloses wherein the dimensions include length and the basic units of measurement include the meter (See <u>Paik et al.</u> column 11, lines 11-23, wherein it is inherent that length and weight are represented by basic unit of measurement, wherein it is inherent that length is measured by meter).

As to claim 12, <u>Zamora et al</u>. as modified discloses wherein the attributes include length and weight, and the basic units of measurement include a basic unit of length and a basic unit of weight (See <u>Paik et al</u>. column 11, lines 11-23, wherein it is inherent that length and weight are represented by basic unit of measurement).

As to claim 13, <u>Zamora et al</u>. as modified discloses wherein the basic unit of length is the meter (See <u>Paik et al</u>. column 11, lines 11-23, wherein it is inherent that length and weight are represented by basic unit of measurement, wherein it is inherent that length is measured by meter).

As to claim 14, <u>Zamora et al</u>. as modified discloses wherein the basic units of length and weight are respectively the meter and the gram (See <u>Paik et al</u>. column 11, lines 11-23, wherein it is inherent that length and weight are represented by basic unit of measurement, wherein it is inherent that weight is measured by gram).

As to claim 15, <u>Zamora et al</u>. as modified discloses wherein the record is a final record, and the incomplete numerical expression appears in the final record (See <u>Zamora et al</u>. column 18, lines 15-35, and see <u>Zamora et al</u>. column 21, lines 8-16, wherein it is inherent that addition of new terms completed by the parser and disambiguation process are added to the dictionary).

As to claim 16, <u>Zamora et al</u>. as modified discloses wherein the incomplete numerical expression appears in the record in a sentence that has been finalized (See <u>Zamora et al</u>. column

18, lines 15-35, and see <u>Zamora et al.</u> column 21, lines 8-16, wherein it is inherent that addition

of new terms completed by the parser and disambiguation process are added to the dictionary for

classification).

Response to Arguments

8.   Applicant's arguments with respect to the claims have been considered but are moot in

view of the new ground(s) of rejection. ·


Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

        For complete list of cited relevant art, see PTO-form 892.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074.

The examiner can normally be reached on 8:30AM-5:30PM EST.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christian P. Chace can be reached on 571-272-4190. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
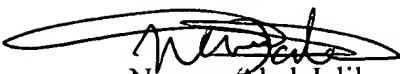
Neveen Abel-Jalil
Primary Examiner
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